A Superiori Knowledge Creation

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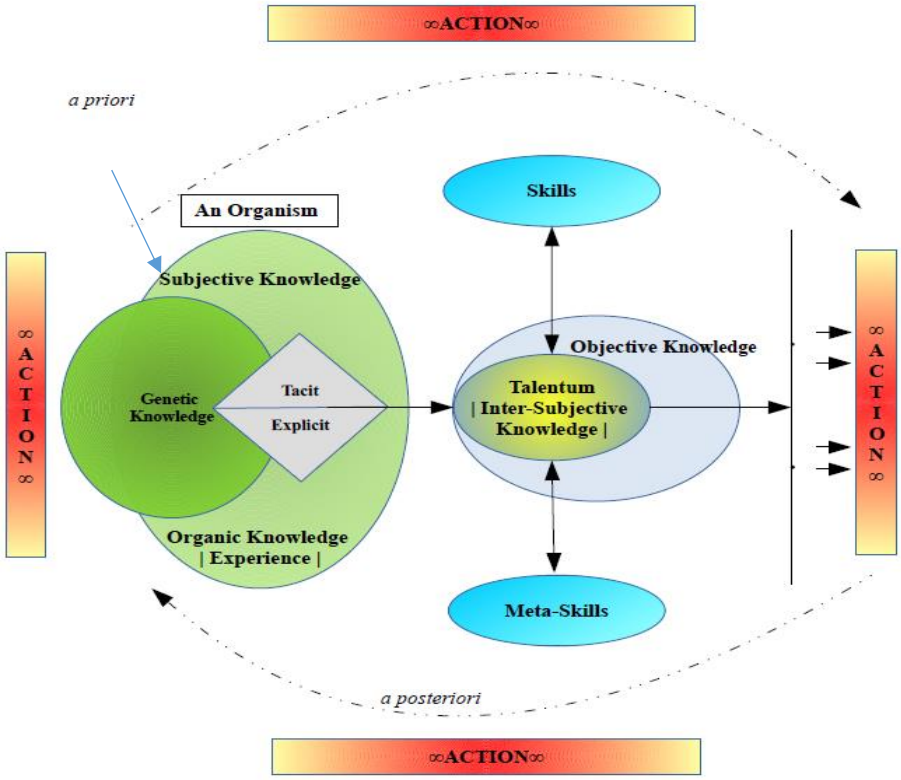
KNOWLEDGE CREATION

I'd wish to take the opportunity to briefly present my stance on knowledge creation as it is a vital part – if not the goal – of any scientific work. This conceptualization tries to explain, why reasoning is eventually not binary – it does not flow linearly – while being paradoxically the result of it. With binary I mean explicitly that knowledge, and therefore skills and competences, is a consequence of *a superiori* knowledge creation, ie. it does not stem either from *a priori* or *a posteriori* reasoning. Both the process of acquisition and the character of knowledge do ultimately not involve a choice between or condition of two alternatives only (such as on-off or yes-no), but rather a synthesis of causes and effects, simultaneity of *logos* and action in an indefinite string of cosmological fluctuations. As in Nonaka and Toyoma (2003), it arises through a process of dialectical contradictions in 'ba'; a phenomenological time and space where knowledge emerges as 'a stream of meaning' (Bohm, 1996). The model below (Figure 13) illustrates this concept.

Figure 1 An approximation of 'a superiori' knowledge creation



Source: Own elaboration

The main presuppositions to my concept of a superiori knowledge are that **1)** action (movement) is a constant and **2)** the interpretation of it depends on the neural abilities (resulting from enculturation and genes) of the observer, and that **3)** the observer is both the subject and the object; a subject (an organism/an object) can simultaneously observe and be observed, and affects the object both by interpreting and judging (assessment) of it by one or all of the following ways: epistemically, psychologically, physically, biologically[1] (Verhaeghe et alia, 2013) and on sub-atomic level (de Bianchi, 2013). It would be of great interest to discover what constitutes the force behind each observational impact; to measure the power of particular observations, which some could refer to as consciousness, and the determinants behind it. As far as people are concerned, the force doesn't seem to correlate with the mass or the amount of knowledge of the observer. Rather than that, the determining cause seems to lie in the quality and the interrelation of the observer's (the subject) and its object's psychosomatic systems.

[1] Hormones and pheromones.

A priori is generally recognized as knowledge that can be known without prior experience[2]. Some ideas seem to evolve as if without any logical connection to the conscious experiences of our cognition. Yet, what else is there for an intellect other than experience? If a priori knowledge would have its source in the reflection on our experiences only, as proposed by many scholars, this would mean that everything we experience is being reflected upon, as if the subconscious would not exist. Better yet, there is an ever-increasing number of biochemical activities that affect our cognition[3] whether positively or negatively, and these take place well out of reach of the subconscious.

It is enigmatic, how could there be innovations if not arising from ideas (a priori)? A novel idea, on the other hand, should be by definition something more than what we've come across, or experienced; since it's new, something that hasn't existed before. A posteriori on the other hand is knowledge that stems from empirical evidence. *A superiori* knowledge is an epistemological nirvana, an epistemic and existential superposition – a quantum state of the mind. *A superiori* is the actual synthesizing process and the result of dialectical contradictions, the knowledge that combines the commonsense and the scientific, the artistic (innovative, intuitive, organic; quantum) and the one stemming from observations of the causal (macroscopic processes; objective and mechanistic). If the Universe would function only based on experience (the past), how would it have become to exist in the first place? How would there be progress? We people are so bound to causality, that we'd say, it must have been a consequence of a prior 'something'. What I mean is misleading in the terms 'prior' and 'post-' is that they impose linearity on time. However, experimental measurements indicate an asymmetry of time and space which is acknowledged to be elemental (Vaccaro, 2016).

The starting point to knowledge creation is relevant not the least from the observer's point of view but cannot be defined exactly as no one knows when did the 'action' begin in the first place. In other words, when did the Vital Force of Life commence? It seems to be a matter of definition and the underlying assumptions or measurements of a given paradigm.[4] Hence can

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[2] Compare: Ideas as angels (Marquez, 1994).

[3] The biochemical providence of many mental disorders is one of the presuppositions of modern psychiatry; Saia-Cereda et alia (2016, p. 9) claim that "*proteins have already been implicated in neurological disorders such as Parkinson's, Alzheimer's and Huntington diseases, additionally to psychiatric diseases, such as SCZ.*" (SCZ – Schizophrenia).

[4] Even if it was for the Big Bang, the theories regarding it change over time. Where did the Big Bang take place?

we pose one of the most intriguing questions regarding the problematics of knowledge creation: What is the origin of ideas?

For the sake of the approximated conceptualization, I have put the intelligible actor in my model to the left, which probably is a form of a cultural bias – I mostly read from left to right. I have named the actor plainly as 'an Organism', because, according to not only my observations, all living organisms evolve and communicate – even if very slowly or if we do not understand their communication for the time being – have a certain type of cognition or, biologically speaking, senses and very adjustable to the external environment[5]. All of the organisms on Earth are also characterized by a certain skill, namely a genetically programmed endowment to *potentially* exist and transfer survival knowledge. Some individuals, especially among homo sapiens, seem to furthermore strive for the continual expansion of their particular *Lebensraums,* both culturally[6] and materially. The problem with the de-codification of other species' communication, and knowledge creation, is above all the discrepancy between languages – the difference in interpretation of sounds (acoustic waves), images; sense-making to electromagnetic radiation, and symbols and artifacts (culture)[7]. The sphere where signal processing takes place constitutes inter-subjective knowledge.

In reality[8], a superiori knowledge creation occurs neither as a cycle nor a spiral. These are both good approximations that nevertheless incline us to see creation as a physically cumulative process that in a chronological consequence does not include decompositional processes, like de- and re-learning. Linear perception sees development as something accumulative *rather* than singular or even multidimensional (simultaneity). Hence, phenomenologically it is correct to talk of epistemological multiverses. However, a multiverse becomes a universe – a semantic sphere where the meaning of a language is shared – when the value of symbols between interacting actors is shared, and this is depicted as 'Talentum' (a unit

[5] An interesting case is how animals adjust their behavior during and upcoming natural disasters and other changes in their natural habitats.

[6] More „*likes*" – attention and glory – and influence.

[7] Compare: "*Idea prawdziwa musi zgadzać się ze swoim przedmiotem*" – lat. Idea vera debet cum suo ideato convenire [eng. A true idea must correspond with its ideate or object] (Spinoza, 2010, p. 9)

[8] Models and theories are mere approximations of the reality. My stance in this matter is similar to the critical realism of Karl Popper, to whom "a*ll our universal laws or theories remain forever guesses, conjectures, [and] hypotheses*" (1974, p. 1019).

of value) in the model above (Figure 13). Talentum can be thus seen as the foundation of the knowledge market.

What about the question of time and knowledge creation? I would argue, that knowledge creation is infinite in quality – because of the fractality and temporality of interpretations – and finite in quantity in a given time: $T_1=K_1$ [where T stands for time and K stands for knowledge)[9]. The idea is hence similar to the so-called 'starting point' in the models proposed by Hartle and Hawking (1983), Hartle, Hawking and Hertog (2008), and Hawking and Hertog (2018): a no-boundary quantum state of the universe. According to my concept, however, a superiori state is the cosmological constant, prevalent in all times; the universe and the knowledge creation evolving in it is eventually hyper-binary – belonging to a new ontological category where time asymmetry is prevalent. With no definite starting point nor an ending. The endless variations of epistemic compositions depend foremost on the time and the place of the measurement.

The amount of knowledge is obviously expanding as measured in bits (the quantity) – information explosion (Ungar, 2000) or the 'knowledge glut' (Fuller, 2002) – but its *absolute* value (the quality) seems to be impossible to measure. The quality of knowledge is seemingly dependent on the definition of its theoretical and practical values, which result from knowledge economics and the political agendas of participating actors in the knowledge market. Consequently, all knowledge and thus paradigms are prone to change in time both in quantity and quality, especially because of changing Talents, and the way the universe is perceived. It seems thus plausible to argue, that the universe is epistemologically inflating whenever new knowledge is being created – the most relevant sphere from the perspective of progress is to research the unknown unknowns, and we seem to do that the way the universe is expanding – randomly and arbitrarily; everything is a coincidence until a sense (reason) is given to it. If we'd travel to the end of the known universe and stretch our hands over the known limit, the universe should expand. Nevertheless, the known universe retracts due to the aforementioned de-compositional processes – the de-actualization of commonly acknowledged technologies.

[9] Finite in quantity, but only in a given time: $T_1=K_1=E_1$ (Time = Knowledge = Energy). The mathematical representation, e.g. 1=X, is an example of our inclination to perceive the Universe in binarian mode. If that'd be the case, if the Universe would be ultimately binarian, the problem with quantification of knowledge should be a matter of deficit measurement techniques. Nevertheless, because of the stochastic nature of the birth (formation) of ideas (*a priori* knowledge) it would be reasonable to call our Universe an Epistemic Multiverse.

The most fundamental thing that distinguishes humans from smart machines (broadly understood AI; cyber-physical systems), as far as I'm convinced, is the Will to Live (*Der Wille zum Leben*). Furthermore, I would claim that the will to live is not affected by the quantity of knowledge per se[10]. Rather than that, the *quality* of knowledge does: pain is not more pleasant today than it was in the 7th century BC for instance, but the relative amount of it has decreased thanks to technological progress. We are better off in the long term when relying on true knowledge rather than false. In other words, technologies that make things work are more valuable than those which lead us nowhere or even worse – create an economic and social recession. One could claim, that to make science for science's sake (and art for art's sake) is nihilistic, immoral, and hedonistic per definition as this approach does not serve any larger cause. Yet, as was the case with a number of invalid scientific innovations and theories (e.g. electroshocks[11] in psychiatric treatment or morphine as a pain killer among other 'blunders' (Pasachoff, 2014)), I'd argue that making science purely for the sake of mere commercialization is more harmful than to make it for the sake of curiousness because it can so easily become an instrument of policy as it has been the case with scientific racism (Tate, 1997; Kurtz, 2004) that has in some cases led to cultural genocides as it was the case with the North-American Aboriginals (Mitchell and Maracle, 2005).

Genetic knowledge is the accumulated knowledge embodied in our cells (the DNA) but is also an ongoing process according to epigenetics (Dupont, Armant, Brenner, 2009). It serves both as a limitation to our cognitive and physical abilities, and as a potential for new knowledge creation. In my model above (Figure 13), '*Meta-skills*' stand for qualitative skills – smart skills, EQ, intuition (Artistic) – and '*Skills*' for the quantifiable endowments like STEM skills (Scientific). Both arts and science serve as cognitive tools for exploration but also for the expression[12] of individuals' needs. These are naturally correlated with particular endowments of the organism in question. However, it is necessary to point out, that the level of rigorousness of science is not univocal. Hard science[13] is more submissive to objective judgment whereas

[10] Der Wille zum Leben is not affected by the amount of knowledge – otherwise we'd live shorter than in the past – although the amount of knowledge affects smart machines – the more data and computing power, the more energy they need.

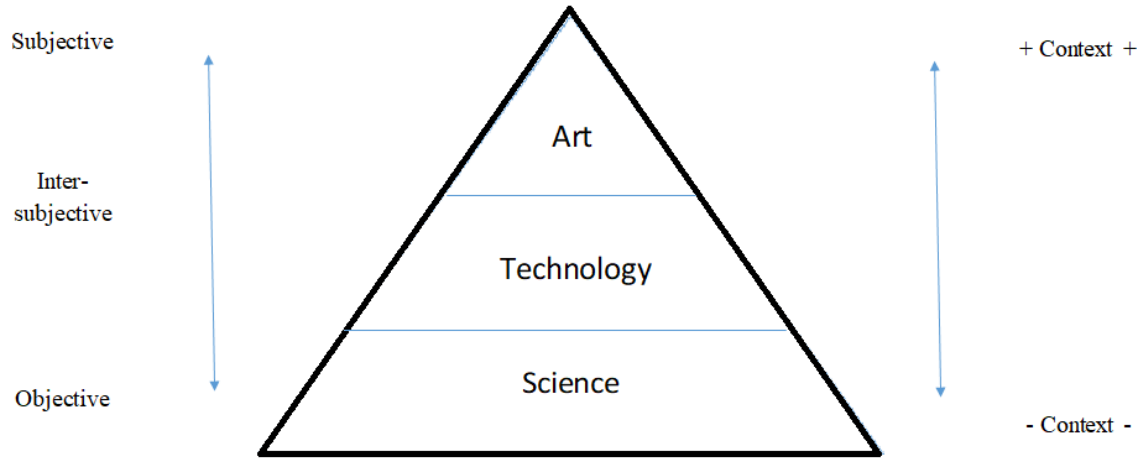
[11] Shock treatment causes irreversible brain damage and dysfunction (Breggin, 2007)

[12] Compare with the Krebs cycle of creativity (Oxman, 2016).

[13] Mathematics, physics, chemistry, biology, geology and botany. In comparison to softer sciences like the social sciences which are prone to cultural bias and context-dependent. Please see Figure 12 below.

arts [artistic experience] is generally easier to acknowledge on subjective and inter-subjective levels, whereas persistent to objective acknowledgment or measurement. Artistic cognition is culturally biased and science is universal; science is something that exists of necessity by nature and art (like technology) emerge as a consequence of human craftsmanship (Aristotle, 1893). I'd argue that art regards the subjective, technology an inter-subjective, and science the objective semantics (truths) as illustrated in Figure 14 below. Similarly, arts is more context-dependent, while science strives for universality[14]: "*Nature does not know what you are looking at, and she behaves the way she is going to behave whether you bother to take down the data or not"* (Feynman et alia, 1964 after Kastner, 2012, p. 61), at least in a macro world, for the quantum mechanics seem to imply also an indeterministic (chance-like, stochastic) evolution that can take place even during the measurement (Kastner, 2019).

Figure 2 Epistemic interrelation of art, technology, and science



Source: Own elaboration

[14] Therefore the word "university"; a place for the research and development of universal laws.

Practical implications

Acknowledging that progress is due to the changes in the quality of knowledge rather than the amount of it should make people create less redundant products and services and instead, focus on the most valuable and sustainable things. The primary source of true innovations arises from not only combination – as in Schumpeter (1911) – but from improved understanding and wise (more efficient and effective) resource usage; better output from the same amount of input.

For the second, the more inter-subjective given inferences are the more they're about technology rather than science. This implies that a lot of scientific research should not be considered scientific truths but rather as technological innovations or ideas (hypotheses).

Finally, the idea of separate a priori and a posteriori knowledge is in my opinion obsolete and disabling our thinking and action thereof. Similarly, I'd argue that dividing knowledge creation into empiricism and rationalism is an epistemological impossibility. We both experience and reflect upon it, ie. build and actualize our knowledge based on our experiences, cognitive capabilities, and most importantly, our imagination. In my model, I have depicted a priori knowledge as if popping up outside the intelligible actor of the epistemological process but as I have reasoned above, the origin of ideas is to be found within and dependent on our genetic and biochemical endowments, and enculturation[15] ('talentum' or experience in a sociological context). This synthesis is essentially of 'a superiori' character. I assert that all of the fore-mentioned conditions together determine the quality and quantity of the knowledge organisms create, disseminate, but also understand – receptors, whether neurological or cognitive (language), won't understand signals they are not programmed to cooperate with. They can nonetheless try to learn them through the knowledge creation process, by experiencing and reflecting. The only thing that knowledge requires to exist is action (in time) and a place (an organism) to become materialized within.

LIMITATIONS

There are several limitations to this conceptualization. The model above (Figure 13) is biased towards those cultures that read from left to right, as the knowledge creation flow is depicted as if it would happen from left to right. In reality, the direction of movement is

[15] Both deliberate and passive.

interdependent between the subject and the object. Furthermore, the conceptualization of knowledge creation might seem to misuse or misinterpret certain mathematical axioms and physical theories. My intention is also to provoke a debate and naturally, expand our understanding of knowledge creation. I'd wish to pinpoint that according to my best knowledge, it is unsuitable and misleading to imagine ourselves doing purely inductive or deductive reasoning, especially within the social sciences. As most bodies of knowledge are prone to change due to technological progress (Time in general), they are all qualified as having a remnant of uncertainty. Thus, and most importantly, scientific theories should be treated with scrutiny and with openness to discussion. For the third, I'd wish to decrease the gap between the philosophy of science and the hard sciences by using concepts and making analogies to inter alia quantum mechanics. Electrons can exist in various states simultaneously and so can the human mind. However the concept of the epistemological and the ontological superposition (one may call it Nirvana or the Truth) is with all due respect much older than the revelation of the quantum superposition, the possibility to tangibly observe and capture superpositions is a milestone in the (technological) progress.

A crucial limitation of my model is that it includes only one actor even though multiple actors are responsible for the creation of the subjective, the inter-subjective but also the objective interpretations of reality. I hope to explain that in the forthcoming publications. Also, the model does not define what the 'action' stands for. Generally, it considers any action imaginable, I do not distinguish physical action from mental here. All action is mental should perception be considered an intellectual endeavor; one could take the Bloom's (1956) taxonomy as an inspiring starting point to such, and, all mental action materializes finally physically through or, in the matter. Mental is spiritual until materialized in the matter. In other words, the Holy Spirit is immaterialized energy recognizable only thanks to the grace of God. In the future, also maybe by the quantum computer. Although the sole observation is redundant without a wise interpretation of it. Provocatively, pessimistically and cynically one could state that the mythology of theocratic Holy Spirits, Fathers, Sisters, Brothers, and other Traitors is similar to the relationship of Dark Matter, Anti-Energy, and other Degenerate Matters. The question is, what are You going to do with yours? Whatever should you do, I'm convinced, that everyone is doing 'the best' they are momentarily doing and or willing to do. Alea iacta est.

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